

REMARKS/ARGUMENTS

This application has been carefully considered in light of the Final office action dated January 13, 2010.

Claims 1-55 were previously cancelled. Claims 56, 58, 60, and 66 are currently amended. New claim 69 has been added. Even in light of these amendments, no new matter has been added.

The Examiner is rejecting claims 58, 60, 66 and 67 under 35 U.S.C. 112, first paragraph for failing to comply with written description.

More specifically the following reasons are given: claims 58 and 60 recite the limitation of "a biocidal or the biocidal compound, 1-bromo-3-chloro-5.5-dimethyldantoin" and claims 66 and 67 recite the limitation of "each of the fibers are previously treated with an antibacterial compound and a biocide, wherein the biocide is 1-bromo-3-chloro-5.5-dimethyldantoin."

The Examiner's attention is directed to several areas of the specification as originally filed. Specifically, pages 22 and 24 list 1-bromo-3-chloro-5.5-dimethyldantoin (BCD) and Triclosan, respectively, which are included as biocidal treatments included for use the applicants' claimed invention. Page 38 list the use of both BCD and Triclosan. BCD is described on page 42 of the

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specification as a treatment for a fabric. Both BCD and Triclosan are listed in claim 21 of the application as originally filed. Finally, please excuse the misspelling of 1-bromo-3-chloro-5.5-dimethyldantoin included with the previous response.

The Examiner includes with the rejection that the applicants' specification as originally filed does not disclose a biocidal agent of the formulation "1-bromo-3-chloro-5.5-dimethyldantoin." Again the Examiner's attention is directed to the specification as filed. On page 18, of the last paragraph of the application which includes the following: "...it is envisaged that biocide substances are incorporated into the fib[er] structure..."

The Examiner is rejecting claims 58, 60, 66 and 67 under 35 U.S.C. 112, first paragraph for failing to comply with the enablement requirement.

As included in the specific examples above the specification as originally filed does include both BCD and Triclosan. Further the sections noted above do show the applicants had an understanding of the claimed subject matter at the time filing.

The Examiner is rejecting claims 56, 58-60, 62, 63, and 66-68 under 35 U.S.C. 112, second paragraph as being indefinite for

failing to particularly point out and distinctly claim the subject matter of the applicants' claimed invention.

Claims 56 and 66 have been amended to more clearly claim the subject matter of the applicants' claimed invention. With reference to claims 56, 58-60, 62, 63 and 66-68 recitation of 1-bromo-3-chloro-5,5-dimethyldantoin, the Examiner's attention is again directed to the preceding paragraphs and the notations of where within the specification support for inclusion of this compound is found.

Based on the amendments to the claims and the support found in the specification for the inclusion of the subject matter, removal of the rejections under 35 U.S.C. 112 both first and second paragraph is respectfully requested.

The Examiner is rejecting claims 56, 57, 59, 61-65 and 68 under 35 U.S.C. 103(a), as obvious over US Patent 6,514,306 to Rohrbach.

Rohrbach is directed to "a fibrous element", "a container member" and "an anti-microbial agent". Taken from the abstract of Rohrbach, the anti-microbial agent is disposed within the container member with the reference showing three different embodiments of the container member. From Fig. 2, container member (20) is a multilobal container having external members

(28) and an internal cavity (22) within which the anti-microbial agent is disposed. Fig. 3, container member (40) has a central core (30) with multiple T-shaped lobes (26) extending from the core. The T-shaped lobes terminate at external wall member (28). The anti-microbial agent is applied to only a portion of the "...surfaces of the cavities 22..." (Col 6, line 55). Finally, container member (50) found in Fig. 4, appears from the figure to be cube shaped with the anti-microbial agent dispersed throughout the container.

Neither container members 20 or 40 can be viewed as having the anti-microbial agent "intergrated into all of the body and core of said fiber" as is found in the applicants' claimed invention. Furthermore, while container members 20 and 40 can be viewed as fibers, container member 50 **cannot** be considered a fiber used to make a filter. Container member 50 is just that a container placed within certain areas of the filter and used to hold anti-microbial agent within its body.

Additionally, the anti-microbial agent is "intergrated into all of the body and core of said fiber" of the applicants' claimed invention, not as is found in Rohrbach designed to leach off or diffuse off easily (Col 6, lines 34-36).

As discussed in the referenced patent, the fibers of Rohrbach work best in a high relative humidity, whereas, the

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applicants' claimed invention as a result of having the anti-microbial agent "intergrated into all of the body and core of said fiber" can also work well with lower levels of relative humidity.

Rohrbach is silent as to effective temperatures of the filters disclosed in the patent. The applicants' claimed invention works at temperatures up to 200°C.

Based on the differences outlined above it is respectfully stated the applicants' claimed invention would not be rendered obvious by Rohrbach. Therefore, it is respectfully requested that the rejection be removed.

The Examiner is rejecting claims 58, 60, 66 and 67 under 35 U.S.C. 103(a), as obvious over US Patent 6,514,306 to Rohrbach when applied to claims 56, 57, 59, 61-65 and 68 above, in view of US Publication Application 2003/0170453 to Foss and US Patent 6,319,356 to Durkes.

Foss is directed to an anti-microbial fiber and fibrous products whereby the anti-microbial agent is added only to certain parts of the fiber to reduce the amount of anti-microbial used. Foss does not contain a fiber with an anti-microbial "intergrated into all of the body and core of said fiber."

Durkes is directed to a process of controlling odor in paper

and paperboard using halohydrantoin products. The BCD is added to the pulp mixture at some point in the process as a halogen donor. Due to the free state of the BCD during the manufacturing process much of its halogen donating capability is used, thereby rendering it useless as a biocide in the finished product. Therefore, while Durkes does contain BCD, it's inclusion in form and used is not analogous to its use in the applicants' claimed invention.

Rohrbach cannot render claims 58 and 60 obvious, which contain all of the limitations of either claim 56 or 57 from which they depend, respectively, if it does not render obvious claim 56 or 57. Furthermore, Foss and Durkes do not add any of the elements of the applicants' claimed invention which were also not contained within Rohrbach. Therefore, the combination of Rohrbach, Foss and Durkes does not render the applicants' claimed invention obvious.

Further in the rejection of independent claims 66 and 67 based on the combination of references Rohrbach, Foss and Durkes, the Examiner's attention is directed to the earlier discussion of Rohrbach and the arguments outlined against obviousness which also apply to independent claims 66 and 67. The addition of Foss and Durkes to the current rejection do not add the necessary elements to render the claims obvious, again as discussed above.

Based on the above, the applicants' claimed invention would not be rendered obvious by Rohrbach with the inclusion of Foss and Durkes. Therefore, it is respectfully requested that the rejection be removed.

The Examiner is rejecting claims 57 and 61 under 35 U.S.C. 103(a), as obvious over US Patent 6,514,306 to Rohrbach in view of US Publication Application 2003/0205137 to Bolduc.

Bolduc is directed to a filter designed to work at temperatures of approximately 22-25°C. Unlike the applicants' claimed invention which is capable of being used at temperatures up to 200°C. Additionally, the filter of Bolduc is made of screens which surround the "network" which is made of fibers treated with anti-microbial agents. The Examiner likens this structure to the sandwich of layers as claimed in the applicants' invention. However, unlike Bolduc wherein the anti-microbial agent is contained **only** within the "network", in the applicants' claimed invention the anti-microbial agent is contained within all fibers which make up the filter.

Again the Examiner's attention is directed to the earlier discussion of Rohrbach and the arguments outlined against obviousness which also applies to independent claim 56. The addition of Bolduc to the current rejection does not add the

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necessary elements to render the claims obvious. Therefore, it is respectfully requested that the rejection be removed.

The Examiner is rejecting claims 60 and 67 under 35 U.S.C. 103(a), as obvious over US Patent 6,514,306 to Rohrbach in view of Bolduc when applied to claims 57 above, in further view of Foss and Durkes.

Rohrbach cannot render claim 60 obvious, which contain all of the limitations of claim 57 from which it depends, if it does not render obvious claim 57. Furthermore, Bolduc, Foss and Durkes do not add any of the elements of the applicants' claimed invention which were also not contained within Rohrbach. Therefore, the combination of Rohrbach, Bolduc, Foss and Durkes does not render the applicants' claimed invention obvious.

Further in the rejection of independent claim 67 based on the combination of references Rohrbach, Bolduc, Foss and Durkes, the Examiner's attention is directed to the earlier discussion of Rohrbach and the arguments outlined against obviousness which also apply to independent claim 67. The addition of Bolduc, Foss and Durkes to the current rejection do not add the necessary elements to render the claims obvious, again as discussed above.

Based on the above, it is stated the applicants' claimed invention would not be rendered obvious by Rohrbach with the